

STABLE ROTATION BONE SCREW SET

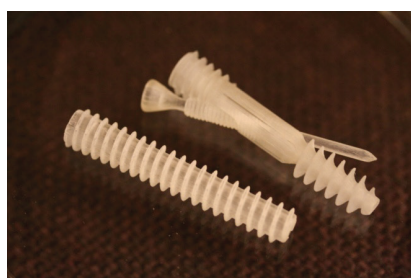
This invention relates to an implant that can be used for stabilization of scaphoid bone fractures or a scaphoid bone pseudoarthrosis. The implant is designed as a rotationally stable twin screw that increases the stability of the scaphoid connection with a simultaneous compression effect on fracture. Through a single access, the new design achieves rotational stability of the implant and a compression effect on the bone.

BACKGROUND

Scaphoid fractures are the most common fracture injuries of the carpal bones, making up 80% of such injuries. The primary cause of these injuries is the hyperextension of the wrist which is described in the literature. Because of poor blood flow, previous treatment approaches for these types of fractures are ineffective in many cases, and can lead to pseudoarthrosis or the loss of the scaphoid. One form of treatment of scaphoid fractures is to stabilize the fracture fragments by means of a headless osteosynthesis screw. Existing systems do not use rotational stabilization of the plane, and from corresponding research it can be concluded that this reduces the healing effect.

TECHNOLOGY

The implant consists of two screws. The first screw is cannulated and placed over a guide wire. This screw also has a groove in the longitudinal direction, in which the second screw can be placed. The second screw acts as set screw and causes the implant to be anchored rotationally stable.



ADVANTAGES

- Scaphoid fractures
- Stable rotation
- Good compression effect
- Minimal dissection of soft tissue
- Access to both screws
- Fixation without cross-holes
 - minimally invasive
 - needs only a small opening
 - axial fixation

REFERENCE:

168.08

APPLICATIONS:

- Scaphoid bone fractures
- Scaphoid bone pseudoarthrosis

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- Licensing,
- Development & Research Cooperation

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